

INTRODUCTION The complex crisis in the Liptako Gourma region of the Central Sahel, spanning Burkina Faso, Mali, and Niger, continues to experience insecurity that triggered significant population displacement in the three bordering countries. In Niger, the volatile security situation critically impacted the stability of communities in the regions of Tahoua and Tillaberi, creating a complex humanitarian emergency marked by violence from non-state armed groups (NSAGs), lack of livelihood opportunities and communal tensions over scarce resources exacerbated by climate change. The protracted crisis propelled thousands of internally displaced persons (IDPs) and refugees from border countries. Despite the deterioration of the security situation, there is evidence that some IDPs are returning to their communities of origin. As such, humanitarian and development interventions targeting conflict-affected communities remains vital.

In order to find durable solutions for internal displacement — whether through return to communities of origin, local integration, or relocation — and to prevent new displacements in the region, it is critical to understand the relative levels of stability in locations hosting returnees or displaced populations. Therefore, IOM has launched the Stability Index (SI) to evaluate the stability of areas hosting returnees or displaced populations. The SI seeks to understand which factors influence a location's stability, which can inform priority programmatic interventions along the humanitarian, peace and development nexus in order to strengthen the resilience and stability and prevent future forced displacements. **This report presents the results of Stability Index assessments in Tahoua and Tillaberi regions of Niger.**

1. METHODOLOGY

The **Stability Index** combines 35 key indicators of stability to estimate a single Stability Score for each surveyed locality. These indicators relate to three key themes crucial to stability: **safety and security, livelihoods and basic services, and social cohesion.** Indicators for each of these themes are grouped to create sub-indexes to facilitate the comparison of localities by theme. (see *Appendix for further information on the indicators included in this analysis*).

These indicators, taken in aggregate, highlight areas that are conducive to durable solutions for internal displacement. Three “anchor questions” about the perception of stability in the community (feeling of stability, future intentions of the community, trends of the situation) are used to validate the relationship between the Stability Score and community sentiment. (see *Appendix for further information about how anchor questions are used for index validation*).

The Stability Index uses Principal Component Analysis to assess the impact of each indicator on the variability in the data. (see *Appendix for further information on Stability Index calculations*). The Stability Index and sub-indexes index range from 0 (poor conditions for stability) to 100 (good conditions for stability).

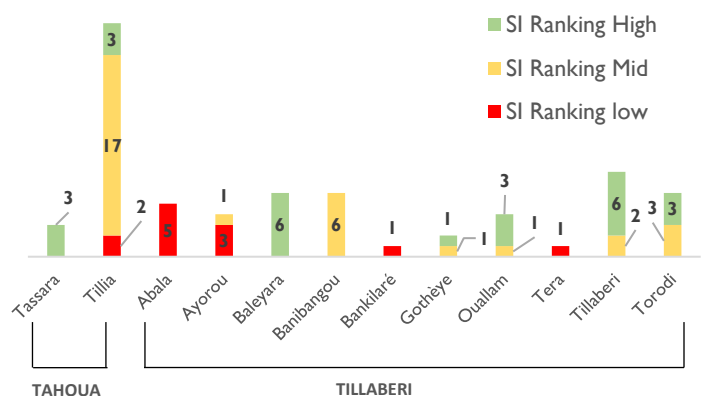
1.1 Data collection overview

The Stability Index includes data collected through key informant interviews at the locality level in the regions of Tahoua and Tillaberi in locations affected by displacement. Key informants, including mayors, community leaders, and aid workers were interviewed in each location by enumerators in December 2021.

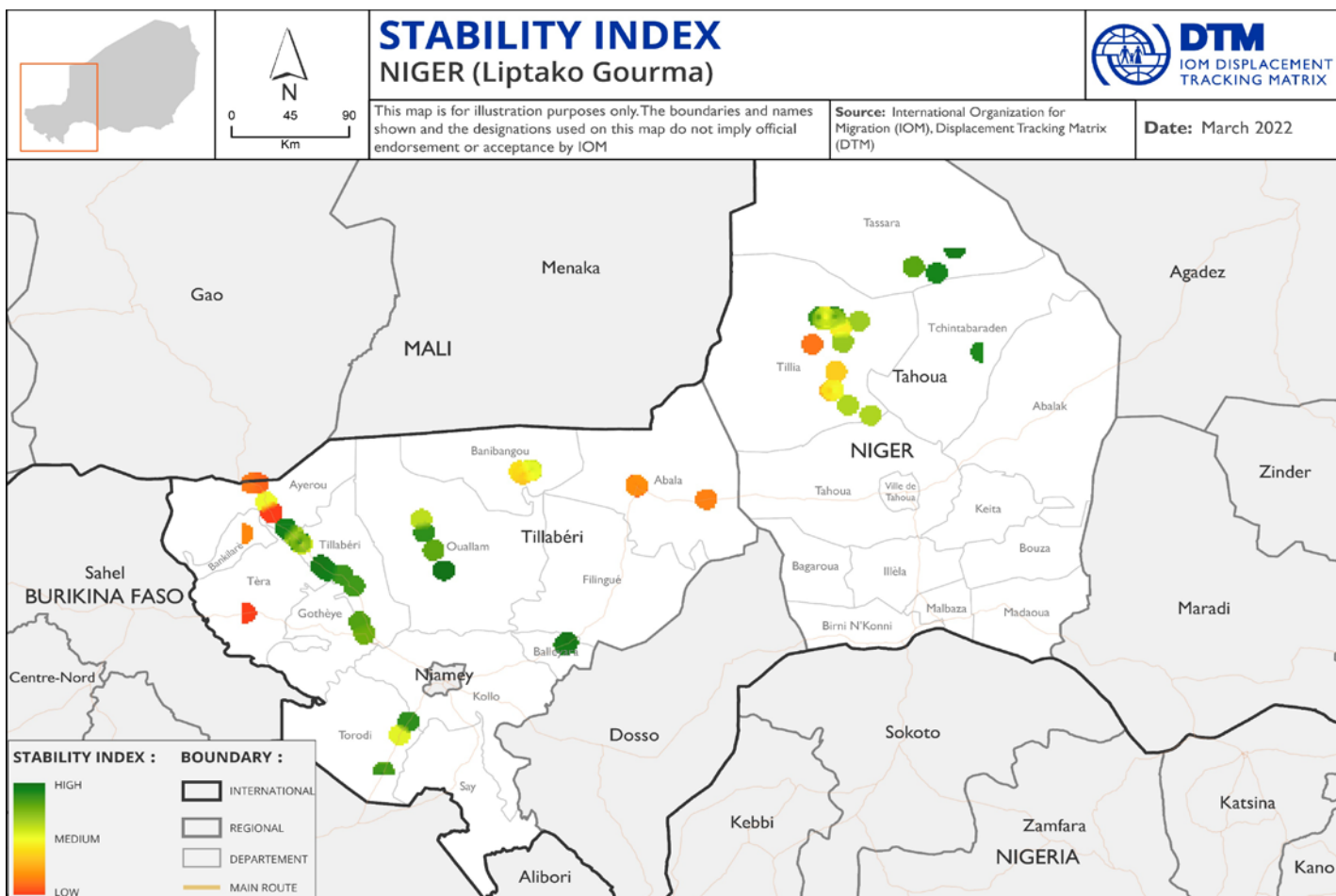
The key informant method has the advantage of rapidly collecting information about a large number of localities. Multiple key informants were interviewed in each locality, allowing IOM to cross-validate information. However, the main limitation of this data collection methodology lies in the fact that only a few informants report on the views of an entire community.

A total of 68 localities were surveyed in the regions of Tahoua and Tillaberi. Locations for data collection were selected through of mapping exercise to identify areas where IDPs and returnees are located. (see *Appendix for further information on the locality selection process*).

Fig. 1: Number of Localities Surveyed Per Department



2. STABILITY SCORES ANALYSIS



The depiction and use of boundaries, geographic names, and related data shown on maps and included in this report are not warranted to be error free nor do they imply judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries by the IOM.

2.1 Stability Scores Analysis (by scale and region)

The average Stability Index score of 68 locations assessed in Tahoua and Tillabéri regions was 63/100. Both regions had similar average Stability Scores; Tahoua with an average of 63/100 and Tillabéri with an average of 64/100.

Similarly, both regions had comparable results for two sub-indexes: Livelihood & Basic Services (Tahoua 63, Tillabéri 62) and Social and Cohesion (Tahoua 62, Tillabéri 64). As it will be shown in more detail in later sections, localities in the region of Tillabéri had better than average scores in social cohesion indicators than in the localities surveyed in Tahoua.

Interestingly, while both regions experience insecurity as in the wider Liptako Gourma region, the region of Tahoua had comparably the lowest average security score (35/100). This is unsurprising given incidences of insecurity and conflict that occurred in Tahoua region during the period preceding the data collection in December 2022.

Fig. 2: Average SI and Sub-Index Scores per Department
Scores range between 1 and 100

	SI Score	Services	Security	Cohesion
Tahoua	63	63	35	62
Tillabéri	64	62	58	64
Average	63	62	46	63

3. LOCALITY ANALYSIS

Comparative analysis of localities with highest and lowest SI scores

The table below shows localities with the highest and lowest scores for Stability, three sub-index scores, stability “anchor questions”, and top five most influential variables. As expected, the anchor questions, particularly the Feeling of Stability and Feeling of Community are closely related to the Stability Index Scores – all of the highest scoring localities also reported feeling safe and stable, while all of the lowest scoring localities reported feeling unsafe and unstable.

Results for reveal that localities in western Tahoua and northern Tillabéri that are situated closer to the borders of Burkina Faso and Mali have the lowest stability scores, particularly in the departments of Ayorou and Tera. In contrast, localities closer to Niamey have a higher stability score, such as those localities in Tagazar commune, department of Baleyara.

			100	1			10 (Best)					1 (Worst)		
Location			SI	Sub-Scores			Key Questions			Key Variable				
Region	Commune	Locality	SI Score	Service Score	Security Score	Cohesion Score	Feeling Stability	Feeling Community	Feeling Situation	Daily Public Life	Worried Security	NSAG Presence	Freedom of Movement	Recent Security Incident
Localities with Lowest SI Scores	Tillabéri	Ayorou	16	1	4	1	1	1	1	1	1	1	1	1
	Tillabéri	Tera	25	26	21	47	1	1	1	1	1	1	1	1
	Tillabéri	Ayorou	30	23	26	70	1	1	1	1	1	1	4	1
	Tillabéri	Abala	31	22	34	28	1	1	1	1	1	1	1	1
	Tillabéri	Abala	31	34	13	93	1	1	10	1	1	1	1	1
	Tahoua	Tillia	32	24	41	46	1	1	1	1	1	1	4	1
	Tillabéri	Ayorou	33	15	30	52	1	1	1	1	1	1	1	1
	Tillabéri	Sanam	34	25	33	48	1	1	1	1	1	1	1	1
	Tillabéri	Bankilaré	35	28	43	66	1	1	1	1	1	1	1	1
	Tillabéri	Abala	37	61	53	30	1	1	1	1	1	1	1	1
	Tahoua	Tillia	40	54	1	46	1	1	1	1	1	1	4	10
	Tillabéri	Abala	43	42	52	47	1	1	1	6	1	1	1	1
	Tillabéri	Banibangou	46	51	54	28	1	1	10	6	1	1	4	10
	Tahoua	Tillia	46	56	30	66	1	10	10	6	1	10	4	1
	Tahoua	Tillia	47	59	36	24	1	1	1	1	1	10	10	10
	Localities with Highest SI Scores	Tillabéri	Sakoira	80	67	80	66	10	10	1	10	6	10	10
Tahoua		Tillia	80	84	48	80	10	10	10	10	6	10	10	10
Tillabéri		Makalondi	81	80	77	94	10	10	1	10	6	10	10	10
Tillabéri		Tagazar	81	98	30	85	10	10	1	10	10	1	10	10
Tillabéri		Torodi	81	82	64	72	10	10	1	10	6	10	7	10
Tahoua		Tillia	81	92	36	88	10	10	10	10	6	10	10	10
Tillabéri		Tondikiwini	81	95	36	64	10	10	10	10	6	10	10	6
Tillabéri		Tagazar	81	91	56	76	10	10	1	10	10	10	10	10
Tahoua		Tillia	83	95	42	70	10	10	10	10	6	10	10	10
Tahoua		Tassara	83	64	64	60	10	10	10	10	10	10	10	6
Tillabéri		Dessa	84	62	100	80	10	10	10	10	6	10	10	6
Tillabéri		Sakoira	84	64	100	43	10	10	1	10	6	10	10	6
Tillabéri		Dessa	85	85	69	71	10	10	10	10	10	10	10	6
Tahoua		Tassara	85	73	36	54	10	10	10	10	10	10	10	6
Tillabéri		Tagazar	86	79	98	61	10	10	10	10	10	10	10	10

4. Analysis of Main Indicators Influencing the Stability Index

The Stability Index uses Principal Component Analysis to understand the impact of each indicator on the variability in the dataset. The indicators with the largest weight have the most influence in determining the Stability Score. The exploration of these key indicators allows for the identification of important factors that may impact the perception of stability in a locality. The top 10 most influential indicators of stability in Tahoua and Tillaberi are listed in the table to the left. (For a more detailed overview of what each indicator measures, see *Appendix*.)

4.1 Top Indicators in Tahoua and Tillaberi regions

	SERVICES	SOCIAL COHESION	SECURITY
1			Residents Worried About Security
2		Daily Public Life	
3			Freedom of Movement
4			NSAG Present
5			Recent Security Incidents
6			Formal Curfew in Place
7			Security Incident Trends – NSAG Activities
8	Access to Water		
9			Security Incident Trends – Resources
10	Market Situation		

Seven out of the top 10 most influential variables are **Safety and Security** indicators, highlighting the influence of safety and security on the stability in Tahoua and Tillaberi. Moreover, these security variables are highly correlated with one another and with a locality’s feeling of stability as well as whether residents of the localities assessed feel they need to leave soon.

In contrast, Daily Public Life (whether daily activities outside of the house are carried out as usual and without fear) is the only **Social Cohesion** indicator that has an influence on residents’ feeling of stability on Niger’s side of the Liptako Gourma region.

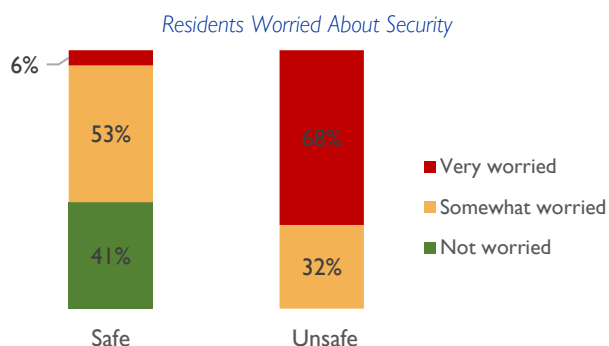
Access to Water and Market Situation (whether local markets are supplied and regularly open), are **Livelihood and Basic Services** indicators that appear among the top 10 most influential indicators of stability. Despite taking the 8th and 10th position of influence, these indicators are nonetheless closely tied with one another and to the safety and security indicators that are much more influential. Moreover, they are closely correlated with the feeling of stability and the resident’s intentions to leave soon.

4.2 Analysis of Key Stability Index Indicators

1. Residents Worried About Security

Safety and security

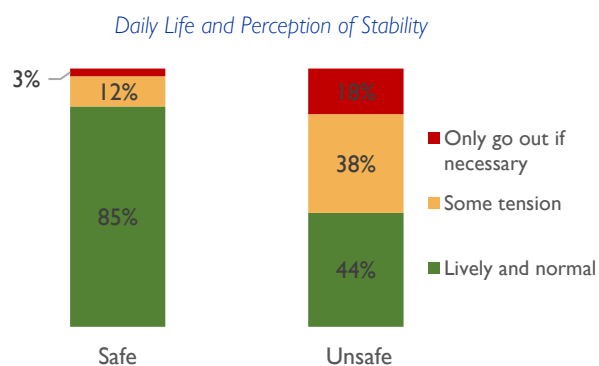
This indicator was the top Stability index indicator. Three quarters of Key informants reported that residents felt very worried about security. These respondents were overwhelmingly in Tillaberi region, where residents from 15 out of 43 localities in reported feeling very worried.



2. Daily Public Life

Social Cohesion

Daily Public Life is the second most influential indicator. Less than a quarter of respondents indicated that residents do not leave their homes unless absolutely necessary. This indicator is strongly correlated with the Feeling of Stability.



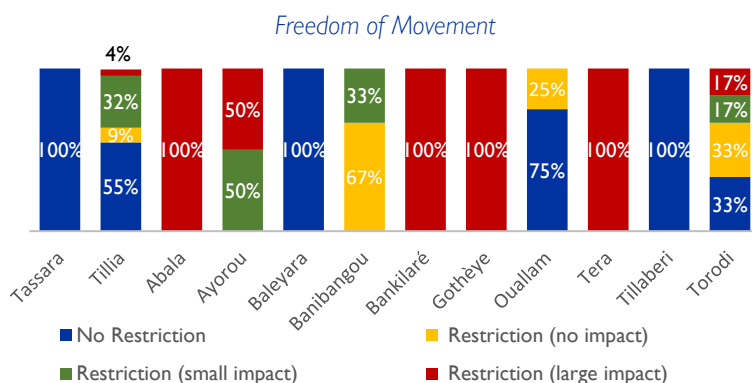
4.2 Analysis of Key Stability Index Indicators

July 2022

3. Freedom of Movement

Safety and Security

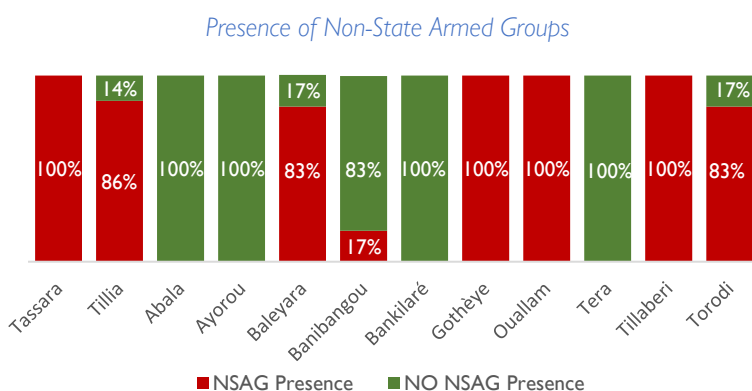
Freedom of movement indicator is the third most influential indicator for the Liptako Gourma region of Niger. About half of the localities assessed in Tahoua and Niger reported no restrictions on the freedom of movement. However, a larger percent of residents reported that restrictions were in place with at least some impact on their lives (37%). Moreover, freedom of movement indicator is highly correlated with daily public life, the second most influential indicator for stability.



4. Presence of Non-State Armed Groups

Safety and Security

The presence of non-state armed groups (NSAG) has been reported in communities near the borders with Burkina Faso and Mali. In particular, the departments of Baleyara, Gothèye, Ouallam, Tassara, Tillaberi and Torodi experienced an overwhelming presence of NSAG. This indicator has a significant impact on the feeling of security and stability in communities. Moreover, it is closely linked to how concerned residents feel about their security (including kidnapping, crime, fighting between armed groups, etc.).



5. Recent Security Incidents

Safety and Security

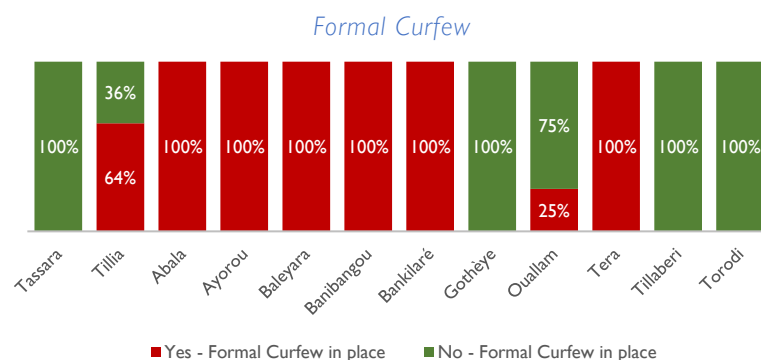
Recent security incidents in western Tahoua and northern Tillaberi significantly impacted the feeling of safety, security and perception of stability in the localities assessed. In particular, localities along the Tahoua-Mali border and over 50 per cent of localities assessed in Tillaberi along the borders with Burkina Faso and Mali have experienced an increase in security incidents in the three months preceding data collection in December 2022.



6. Formal Curfew

Safety and Security

The majority of localities have formal curfews enforced by the state due to security reasons. As such, this indicator was key in influencing the feeling of security and thus stability in the region. 6 department in Tillaberi have a formal curfews in place, several of which are close to the borders with Burkina Faso and Mali.



4.3 Analysis of Anchor Questions

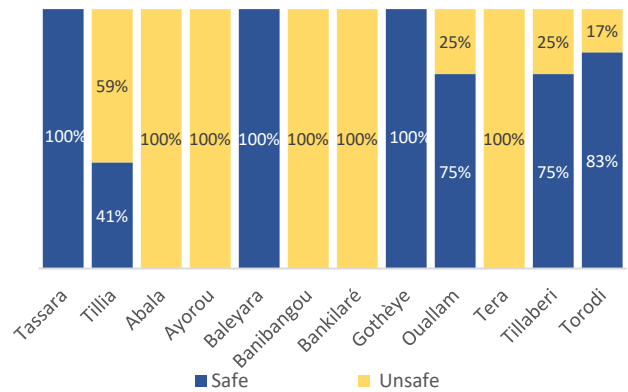
The first section of the questionnaire focused on the key informants’ perception of stability in the assessed localities. The below “anchor questions” were used to validate Stability Index findings against self-reported perceptions in the community. Key informants were asked three main questions to assess the perception of stability in their communities.

Feeling of stability

Does the locality feel safe or unsafe?

Only about half of respondents (50%) felt that their localities were safe and stable. Localities close to Niamey generally reported feeling stable, while localities along the borders with Burkina Faso and Mali were more likely to report feeling unstable. In Tillaberi, localities in the departments of Abala, Ayorou, Banibangou, Bankilare and Tera reported 100% feeling unsafe. In Tahoua, 59 per cent of the localities assessed reported feeling unsafe. However, it’s important to note that due to the small sample size (68) of localities in Tahoua, the results are not representative of the entire region of Tahoua.

Feelings of Stability

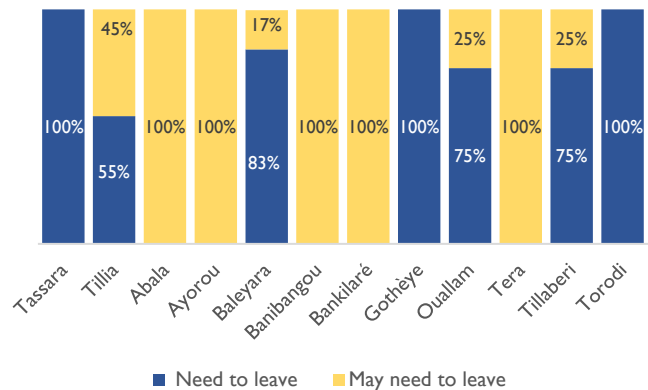


Future intentions of the population

Do people in the locality feel that they need to leave soon due to safety concerns?

The departments with the lowest self-reported feelings of stability both had the highest percentage of key informants reporting that people from their locality felt the need to leave soon. This is particularly notable in Tillaberi, where more than half of the localities assessed reported that residents may need to leave soon. Responses to intention to move highly correlated to responses on “feeling of stability”. Localities in the same departments that that reported 100% per cent feeling unsafe also indicated that they may need to leave soon.

Future Intentions

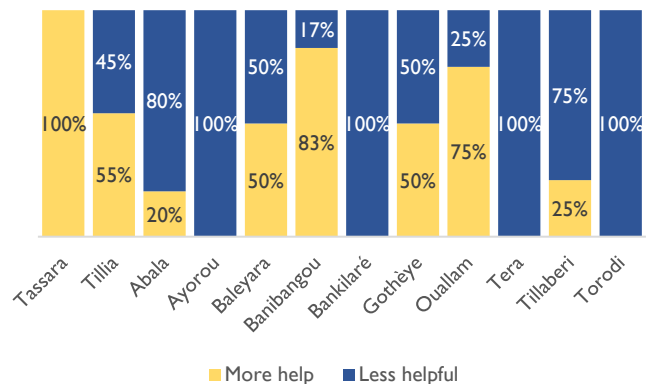


Changes in perception over the last 6 months

Do people feel more or less hopeful about the state of community compared to six months ago?

Interestingly, responses to the perception of stability question did not always correlate with either the questions feeling of stability or the future intentions of the population. While key informants in the department of Banibangou in Tillaberi indicated that residents in the localities felt unsafe (100%) and reported high intention of needing to leave (100%), the majority also reported feeling more helpful (83%). In contrast, the majority of key informants in the departments of Abala, Ayorou, Bankilare and Tera in Tillaberi who reported high feelings of instability and the possibility of needing to leave soon, also indicated feeling less helpful about the state of the community than six months ago.

Changes In Perception



5. CONCLUSION

The results of the first round of Stability Index in the Liptako Gourma region of Niger presented in this report reveal a number of key indicators that directly impact the perception of stability in localities hosting displaced persons and returnees in the regions of Tahoua and Tillaberi. In particular, findings suggest that indicators belonging to the Safety and Security scale highly influenced a community's perception of stability, which is unsurprising given the regular insecurity situation in these regions.

Only one indicator belonging to the Social Cohesion scale (Daily Public Life) is found in the top 10 influential variables. Further, only two indicators belonging to the Basic Services scale (Access to Water and Market Situation) were found to be among the key indicators.

The ten most influential indicators on the perception of stability by order of impact, were: residents worry about security, daily public life, freedom of movement, presence of NSAG, recent security incidents, formal curfew in place, trends in security incidents linked to NSAG activities, access to water, security incidents linked to resource tensions, and the situation of local markets.

The analysis presented in this report provides a better understanding of the main influential indicators and yield insight into possible programmatic and policy response needed in the targeted communities.

Key Takeaways

- Programming along the Humanitarian-Development Nexus: Analysing the differences between localities with the highest and lowest scores on Stability Index can provide useful insights into programme priorities. Different interventions are needed in localities on opposite sides of the stability spectrum. For example, in localities with very low stability scores, programming should focus on interventions such as improving access to water, NFI kits and shelter. In localities with high stability scores, programming should focus activities on development and durable solutions for returnees or communities hosting displaced persons, such as promoting livelihoods and access to basic services.
- Focus on programming Safety and Security Indicators: Given that the top indicators were linked to safety and security (7 out of 10), efforts should focus on developing and promoting policies and programmes that positively impact safety and security of affected communities.

Data Collection and Analysis Activities funded with the support of:



7. APPENDIX

7.1 Selection of Localities

The selection of localities was as broad as possible in areas affected by displacement and/or returns in the Liptako Gourma region of Niger. A list of localities to be surveyed was created based on data collected by IOM on displacement/returns and other existing data systems (census, administrative lists, etc.). The objective was to have a large enough number of localities at both the country and regional level to ensure a solid foundation for statistical analysis. A total of 68 locations in Tahoua and Tillaberi regions were covered. A locality is the administrative level 4 (lowest possible level). The level has a representation, whether formal (State) or informal (Chef de village).

7.2 Stability Index Calculation

The Stability Index calculation begins with survey design: this tool was developed with substantive input from community stabilization and HDPN experts. It includes a set of questions assessing the conditions in a locality that were determined to be 1) potential indicators of stability and 2) possible to rank in terms of their stability implications. Questions were divided into four categories: anchor questions (perceptions about stability), safety and security, social cohesion, and access to basic services.

Before index calculation, responses were ranked ordinally from best to worst case scenario. Then, Principle Component Analysis (PCA) was run using all indicators *except for the “anchor questions”*, which are used instead to validate index results. The **weight** for each variable, determined via PCA, was combined with the ranked survey-responses for each locality to generate its overall **Stability Score**.

7.3 Sub-Index Calculation

In addition to the Stability Score, three separate **sub-indexes** were generated using the variables from each of the three themes in the survey: Security, Social Cohesion, Services. The sub-indexes were calculated by separately combining the **weights** from the Stability Index calculation with the variables for each theme, and then rescaled between 1-100. **The overall Stability Index is not an average of these three sub-indexes.** The sub-indexes facilitate the identification of localities that may need specific attention in one of these sectors.

7.4 Stability Index Validation

The Stability Index and the sub-indexes are **validated against the key questions on the perception of stability.** This ensures that there is a statistically significant relationship between the Stability Scores and the perception of stability. The relationship was validated via logistic regressions which indicate that a locality's Stability Index score has a statistically significant, positive

correlation with both the community's feeling of stability and their feelings of whether they will need to leave soon. However, there is no discernable relationship between Stability Score and the perception about whether the situation is improving or getting worse.

7.5 Principal Component Analysis

The Stability Index is calculated using a dimensionality reduction technique called Principal Component Analysis (PCA), which **essentially condenses the information from over 30 variables into a single, easily comparable Stability Score.** PCA gives more weight to the factors that have a greater impact on the variability in the data, meaning that those factors make up a larger proportion of the Stability Score.

While each of the indicators assessed is clearly important for informing programming along the humanitarian-development-peace nexus, **PCA is particularly useful for demonstrating the impact of different indicators on one another, and the proportional influence of a given indicator on a given dataset.** For example, while the availability of electricity and access to health care are both individually important factors, they also heavily influence one another (this is called collinearity). PCA helps to see beyond the collinearity and drives at influence in a more coherent way, which is critical to understanding complex phenomena like the nature and conditions of return.

7.6 Cluster Generation

To facilitate the analysis of groups of localities, **clusters** were created using the K Nearest Neighbors (KNN) machine learning algorithm, weighted by geographic distance. KNN allows for the identification of groups of localities that are the most similar across all of the provided inputs. The inputs included the first five dimensions from the Principle Component Analysis results generated during the Stability Index calculation, as well as the geographic distance between the latitude-longitude points of each locality.

7.7 Limitations

Some localities that were not accessible during the data collection period were not assessed due to security or logistical reasons. This may have introduced bias as data points from some of the least secure locations were excluded from the analysis. This limits the generalizability of the Stability Index findings in extremely insecure localities.

It is important to note that the Stability Index is based on informants' perceptions of stability and reports of the conditions in their locality and does not claim to provide an objective measure of this complex topic. Key informants are not randomly selected and may have different opinions about the stability in their locality than some of their neighbors.

7.5 – Survey Indicators

ANCHOR QUESTIONS: PERCEPTION OF STABILITY

These key indicators were used to measure the perception of stability in each locality. The key indicators were then tested against each of the thematic indicators below to identify the most influential thematic indicators on the perception of stability.

Feeling of Stability in the Locality

Does the locality feel safe and stable or unsafe and unstable?

Ability to Continue Living in Locality

Do people in the locality feel that they need to leave within the next six months?

Changes in Perception in the Last 6 Months

Do people feel more or less hopeful about the state of the community than they did six months ago?

SCALE 1: LIVELIHOOD & SERVICES

Shelter Access and Quality

Proportion of the community that has access to shelter and conditions of shelter.

Damage to Homes

Level of damage to homes due to conflict, and whether reconstruction is underway.

Primary Education

Access to primary education and availability of schools in the locality or in neighbouring towns

Health Center and Medical Care

Access to functioning health center in the locality or in neighboring town

Local Market

Whether markets are open regularly and supplied

Electricity

Electricity access and reliability in the locality

Drinking Water

Drinking water access and availability in the locality.

Farmland & Fishing Grounds

Extent of fishing grounds and farmland being used in the locality

Presence of Public Sector Employees

Whether public sector employees are present and how they reacted to the conflict.

Internet and Communications Technology

Access and reliability of internet or phone services.

7.5 – Survey Indicators

SCALE 2: SOCIAL COHESION

Illegal Occupation of House, Land and Property

Land, habitat or property occupied illegally (without authorization from family, neighbors, local authorities)

Robbery Personal Effects

Robbery of personal belongings reported in locality in the last 6 months

Cattle Theft Reported

Cattle theft reported in the locality in the last 6 months

Daily Public Life

Whether residents are able to carry out basic activities without worry (going to the market, letting children play outside, street vendors, etc.)

Community Support

Likelihood of cooperation between neighbors in case of problems (such as with the supply of water or food) in the locality

Community Tension

Incidents or clashes involving two groups (religious, ethnic, herders/farmers, displaced/returnee/host communities) in the locality

Equal Access to Services

Populations in the locality have equal access basic services and resources no matter their age, sex or group (ethnicity, clan, displacement status)

Identity Documents

Level of identity document possession or access in the locality

Participation in Public Affairs

Level of participation in local public and political life (civil society organizations, unions, committees, social gatherings, religious groups)

SCALE 3: SAFETY AND SECURITY

Recent Security Incidents

Whether there have been serious security incidents in recent months

Security Incidents – Resources

Trends in the number of security incidents linked to resource tensions (cattle raiding, land conflict, etc.) over past three months.

Security Incidents – Non-State Armed Groups

Trends in the number of security incidents linked to NSAG activities (kidnapping, terrorist attacks, raids, etc.) over past three months.

Petty Crime

Trends in the number of petty crimes (theft, pickpocketing, vandalism, public intoxication, etc.) over past three months.

Community Concerns About Security

How concerned residents feel about their security (kidnapping, crime, fighting between armed groups, etc.).

Police Presence

Presence of police/gendarmerie in the locality

Security Forces Presence

Presence of security forces in the locality

Non-State Armed Groups Presence

Presence of Non-State Armed Groups in the locality

Informal Militias/ Vigilante Group Presence

Presence of informal self-defense militias and vigilante groups in the locality

Freedom of Movement

Residents' freedom of movement (to markets, to their homes, to workplaces, to farms, etc.) in the locality

Formal Curfew

Formal curfew for security reasons enforced by State

Informal Curfew

Informal curfew enforced by Non-State Armed Groups

State of Emergency

Whether the locality is under a state of emergency

Legal Remedies

Whether residents have access to legal remedies to resolve disputes